Adolescent Development
48.212
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Introductory Overview

Multidisciplinary Approach

- Draws upon multiple disciplines
  - Six primary disciplines, which are?
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
  - Goal: Integration into a coherent picture of adolescent development

Boundaries of Adolescence

- Roughly defined as (ages)?
- Other ways of defining boundaries?

- Series of passages from immaturity to maturity – boundaries can be inconsistent
  - Early, middle, late phases
Framework of course/text

- Three general components
  - Fundamental Changes
  - Contexts
  - Psychosocial Development
- None of these exist in isolation
- Interactions within and between components

Fundamental Changes

- Biological
- Cognitive
- Social transitions

- These changes are universal

Contexts

- Great variability over time
  - Family
  - Peer group
  - School
  - Work and leisure settings and media utilization
Psychosocial Development

- Identity
- Autonomy – will not cover
- Intimacy
- Sexuality
- Achievement – will not cover
- Psychosocial problems

Theoretical perspectives

- Biological
- Organismic
- Learning
- Sociological
- Historical and Anthropological

- Combination perspective – systems theory – Urie Bronfenbrenner

Bronfenbrenner’s Ecological Systems Theory
Scientific study

- Many of our ideas about adolescents based on stereotypes
- Scientific evidence often not consistent with our “common sense”
- Will always be exceptions to general patterns we describe, where they exist at all
- Adolescent development highly variable

Adolescence

Chapter 1: Biological Transitions

Outline/overview

- Puberty
  - hormones
  - bodily changes
  - individual and group differences
  - early vs. late maturation
- Eating disorders
- Physical health & Health care
Puberty: Three Chief Physical Manifestations

- Growth spurt
- Primary sex characteristics - development of the gonads
- Development of secondary sex characteristics – genital and breast development, pubic, facial, and body hair

Puberty Affected by Context

- Timing of physical changes in adolescence varies by
  - Regions of the world
  - Socioeconomic class
  - Ethnic group
  - Historical era
- Example: Menarche (first menstruation)
  - U.S. average 12 to 13 years
  - Lumi (New Guinea) average > 18 years

Puberty: An Overview

- The Endocrine System
  - No new hormones are produced and no new bodily systems develop at puberty
  - A feedback loop develops involving the
    - Hypothalamus
    - Pituitary gland
    - Gonads
  - Some evidence that rising levels of leptin may be the root trigger for the process
Hypothalamus & Pituitary

The Endocrine System: HPG Feedback Loop

- HPG Axis:
  - Hypothalamus
  - Pituitary gland (master gland)
  - Gonads (testes and ovaries)
- Gonads release sex hormones into bloodstream
  - Androgens and estrogens

Roles Played by Hormones

- Organizational Role
  - Prenatally hormones “program” the brain
  - Patterns of behavior due to this organization may not appear until adolescence
    example: aggression
- Activational Role
  - Increase in certain hormones activates changes
    example: secondary sex characteristics
Somatic Development: Changes in Stature/Dimensions of the Body

- Adolescent growth spurt
  - Simultaneous release of growth hormones, thyroid hormones, and androgens
- Peak Height Velocity
  - Time that adolescent is growing most quickly
- Average female growth spurt is 2 years before the average male growth spurt

Somatic Development: Changes in Stature/Dimensions of the Body

- Skeletal changes
  - Bones become harder, denser, more brittle
  - Conclusion of puberty
    - Closing of ends of long bones
    - Growth in height is terminated
- Relative proportions of body fat/muscle change for boys and for girls
- Changes in the circulatory & respiratory systems

Individual Differences in Pubertal Maturation

- Pubertal maturation
  - an interaction between genes and environment
  - Differences in timing/rate among individuals in the same general environment result chiefly from genetic factors
  - Two key environmental influences: nutrition and health
  - Exposure to pheromones
Group Differences in Pubertal Maturation
- Three group comparisons of average age of menarche
  - Across countries
  - Among SES groups within a country
  - Within same populations but different eras
    - Secular trend – due to improved nutrition, better sanitation, better control of infectious diseases

Group Differences in Pubertal Maturation
- Secular trend
  - Leveling off in industrialized nations
  - U.S. average age of menarche has not changed in 30 years
  - Onset of puberty has continued to occur earlier among African American girls in the U.S.

Psychological/Social: Early or Late Maturation
- Perception of being an early or late maturer is more important in affecting one’s feelings than the reality
- Early maturation does bring social advantages, for boys more problematic for girls overall
- But early maturation is associated with
  - More drug and alcohol use
  - Precocious sexual activity
- Context is important to consider
Eating Disorders

- Basal Metabolism Rate
  - The minimal amount of energy one uses when resting
- Obesity
  - The most common eating disorder among adolescents
- Disordered eating
  - Patterns of eating attitudes and behaviors that are unhealthy.
  - Deviation from the “ideal” physique can lead to loss of self-esteem and other problems in the adolescent’s self-image

Eating Disorders

- Studies of magazines, 1970 to 1990
  - Ideal body shape became slimmer
  - Ideal body shape became less curvaceous
- Adolescents with these eating disorders have an extremely disturbed body image.
- Bulimia
  - Eating binges; force themselves to vomit
  - 3% of adolescents are genuine bulimics
- Anorexia
  - Starve themselves to keep weight down
  - Fewer than 1/2 of 1% of adolescents
- Theoretical perspectives

Physical Health and Health Care in Adolescence

- One of the healthiest periods of the lifespan
- Threat to health: Psychosocial Causes (not natural causes)
- Reducing health compromising behaviors
- Increasing health enhancing behaviors – especially among poor & minority populations
- Increasing access to healthcare among the poor, very important goal
Physical Health and Health Care in Adolescence

- PARADOX: Healthy period of lifespan
- But nearly 1 in 15 adolescents has at least one disabling chronic illness
  - such as mental disorders (depression)
  - respiratory illnesses (asthma)
  - muscular and skeletal disorders (arthritis)

Adolescent Mortality

- 45% of teen deaths
  - Car accidents
  - Other unintentional injuries
- 30% of teen deaths
  - Homicide and suicide
- 50 years ago, most deaths due to illness/disease